



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

du

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/603,941

06/27/2000

Zhenan Bao

BAO 16-25-12

4437

7590

05/18/2004

HITT GAINES, P.C.

P.O. Box 832570

Richardson, TX 75083

EXAMINER

ECKERT II, GEORGE C

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/603,941	Applicant(s) BAO ET AL.	
	Examiner G orge C. Eckert II	Art Unit 2815	

--The MAILING DATE of this communication app ars on the cover sheet with the correspondenc address --

THE REPLY FILED 23 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. **ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).**

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:


Claim(s) allowed: None.

Claim(s) objected to: None.

Claim(s) rejected: 1-12 and 19.

Claim(s) withdrawn from consideration: 13-18.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____


GEORGE ECKERT
PRIMARY EXAMINER

Continuation of 5. does NOT place the application in condition for allowance because: the arguments are not persuasive. Applicant points to a purported difference between high dielectric strength materials and low dielectric constant materials by referring to page 3, lines 1-3 of the instant specification. However, applicant has misconstrued the referenced teaching. The specification does not support a distinction between high dielectric strength materials and low dielectric constant materials but merely says that current passage and current storage processes within a material [the same material] are different. In fact, applicant's specification, while drawn to a high dielectric strength material, also teaches that the same material has a low dielectric constant (see page 8, lines 19-21, dielectric constant from 2.0 - 4.0) which is similar to that taught by Hacker (para. 0002 - $k < 3.9$).

This also undercuts applicant's argument on page 3 of the response where applicant points out that Hacker's concern is with low dielectric constant material whereas the instant invention is concerned with high dielectric strength. Applicant asserts that using a low k dielectric to reduce RC delay depends on the notion that capacitance will be reduced. Of course this is correct. However, it is not, as applicant asserts, completely opposite to the use of a high-dielectric strength material because, as applicant has shown, a high-dielectric strength material can simultaneously have a low dielectric constant.

Moreover, given the breadth of instant claims 1 and 19, no structural distinction can be found between the dielectric layer of Hacker and that claimed. The instant claims rely on processing limitations for distinction over the art. However, Hacker already teaches these processes (liquid deposited precursor, cured at a low temp.) as pointed out in the final rejection. Arguing here that the claims are patentable based on different concerns of the inventors (high strength vs. low k) is not persuasive when the structure claimed is taught in the prior art.

Along the same lines, applicant argues a distinction based on the term 'active dielectric' as used in claim 1. First, the argument seems to imply that a structural difference can be drawn by use of the term, implying specifically that the term 'active dielectric' in light of applicant's concern over high dielectric strength, means that the dielectric must be configured as a gate dielectric. However, this would require not only reading a limitation from the specification (or argument) into the claim, but it would also contradict the structure that is claimed which merely states that the dielectric is formed on the substrate. Also, use of the term 'active' does not distinguish over Hacker as it does not cite a structural difference. Applicant has not pointed to a structural difference between the instant claim and Hacker, but only points out that one is concerned with high strength and the other low k . These are not mutually exclusive as taught by applicant's specification and discussed above. Also, the low k dielectric of Hacker could be used as an 'active' dielectric as nothing in Hacker teaches to the contrary. At best, applicant's argument regarding the limitation 'active' may be considered a functional limitation argument but there is nothing that indicates Hacker's dielectric could not function as such a layer, despite the argument that Hacker is not concerned with high dielectric strength - the layers have not been shown to be structurally different.

Regarding applicant's contention that Hacker does not teach a substrate suitable for an organic FET, it is noted, as applicant concedes, that Hacker teaches a substrate of glass, metal, plastic or ceramic. These substrates are suitable for organic FETs despite the assertion to the contrary (note also the instant specification, page, 10, line 15 indicating plastic is a suitable substrate).

Finally, regarding the obviousness rejection, applicant states that Ferguson does not cure the deficiencies of Hacker. However, as discussed above, Hacker is not deficient and thus the argument is not persuasive. Also, applicant argues that Ferguson is not concerned with the same problem as applicant. However, this is not persuasive because motivation was established for combining Hacker and Ferguson which is sufficient for a prima facie obviousness rejection, regardless if it is different from that which concerned the instant inventor.

In all, the arguments are not persuasive. Despite applicant's assertion to the contrary, a high dielectric strength material is not necessarily at odds with a low dielectric constant material. This is evidenced by applicant's instant teaching and does not support a structural difference and thus patentability of the instant claims.